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Pattern formation method - by treating semiconductor surface with silane compound, coating with resist and exposing using mask to form resist pattern

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| JP 10270306 | A | 19981009 | JP 97240531 | A | 19970905 | 199851 ✓ |
| TW 351834 | A | 19990201 | TW 97112608 | A | 19970902 | 199931 |
| KR 98032852 | A | 19980725 | KR 9752739 | A | 19971015 | 199932 |
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Abstract (Basic): EP 837369 A

A pattern formation method comprises (1) treating a surface of a semiconductor with silane compound (I) containing surface treatment agent; (2) forming a resist film by coating the surface of the semiconductor substrate with a resist and (3) forming a resist pattern through exposure of the resist film using a mask with a desired pattern shape and development. In (I), R1, R2 and R3 are optionally same groups selected from H, a (non)substituted 1-6C (un)saturated hydrocarbon group and a 3-6C alicyclic saturated hydrocarbon group; and R4, R5 and R6 are same or different groups selected from H, OR7, (R7 = H, (non)substituted (un)saturated 1-6C hydrocarbon, 3-6C alicyclic saturated hydrocarbon) (non)substituted 1-6C (un)saturated hydrocarbon group and a 3-6C alicyclic saturated hydrocarbon group. Also claimed is a surface treatment agent comprising a silane compound of formula (I).

USE - Used in the manufacture of a semiconductor substrate.

ADVANTAGE - Improved adhesion between a semiconductor substrate and a resist pattern and skin layer is prevented from being formed on the surface of a resist pattern using a chemically amplified resist.

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